

I enclose a file containing the nucleotide sequence of the PRE7(IAP) as is the provisional name we have selected for this element, which is involved in posttranscriptional regulation.

We have identified elements that have homology to PRE7(IAP) from the databases. The alignment of these elements is provided. None of these elements has been characterized functionally. Our work is the first that identified these sequences as potential posttranscriptional control elements. At present, PRE7(IAP) is the only one for which we have functional data.

In the aligned sequences, our functional PRE7(IAP) is called FNC3B. Only the "core" 231 nt element containing the functional element is shown.

FNC3B

GTGGGGTGCAGGCTAAGCACTGCACAGAGGATAGCTTGCTGTTGGCATCCTGTGGAAGG
CACGTCTGATTGCATGAAGGTTCAAGTGTCTAGTTCCCTTCCCCCAGGAAAAACGACACG
GGAGCTGGCCAAGACCTCTCTGGGTGATGAGCCTAAGGGATGGTTTTGTGTAGGGCCCCCT
ATGCTTGCACACTGGGGATCAGACCTCTACCTTCACCCATGAGGCTTGCTT

PRE7 (IAP)

CTTTCGCCATGGTAGCATAGGCTTTTGCTGCAGTGGAGGCGGGACAATCTCCTCAGATTC
GGTTTGCCGCTCTAAAAGAAATTATGCTGCGTTATGCCGTGGGGTGCGAGGCTAAGCACT
GCACAGAGGATAGCTTGCTGTTGGCATCCTGTGGAAGGCACGTCTGATTGCATGAAGGTT
CAGTGTCTAGTTCCCTTCCCCCAGGAAAAACGACACGGGAGCTGGCCAAGACCTCTCTG
GGTGATGAGCCTAAGGGATGGTTTTGTGTAGGGCCCCCTATGCTTGCACACTGGGGATCAG
ACCTCTACCTTCACCCATGAGGCTTGCTTGCAGCAATTAAGATCTGGCCATAGGTTAATT
AACATCCTGGCCTTTTGATGCACCTGCCACAAG

the underlined sequences correspond to the aligned fragment
FNC3B

The alignment of the sequences found in the database
follows:

FNC3B.seq Begin:99 End:329
GB:X57268 Begin:1599 End:1841
GB:M10134 Begin:7308 End:7538
GB:X01172 Begin:2423 End:2668
GB:M12515 Begin:188 End:418
AE000664.seq Begin:118019 End:118264
GB:M18252 Begin:3418 End:3662
GB:M18251 Begin:1630 End:1874
GB:S74315 Begin:3824 End:4068
GB:M10062 Begin:2711 End:2955
GB:E00593 Begin:2711 End:2955
E01116.gb_pat Begin:2711 End:2955
GB:E00594 Begin:3537 End:3781
E01117.gb_pat Begin:4388 End:4632
GB:X54077 Begin:2200 End:2444
GB:X04120 Begin:4477 End:4721
GB:X97915 Begin:839 End:1083
GB:M17551 Begin:6474 End:6721
GB:U58494 Begin:6192 End:6439
U70139.gcg Begin:4321 End:4565

!!NA MULTIPLE ALIGNMENT 1.0
PileUp of: @CTE-setClg.list

Symbol comparison table: GenRunData:pileupdna.cmp CompCheck: 6876

GapWeight: 2
GapLengthWeight: 1

CTE-setClg.msf MSF: 251 Type: N 10:03 Check: 7329 ..

Name: FNC3B	Len: 251	Check: 6699	Weight: 1.00
Name: X57268	Len: 251	Check: 7888	Weight: 1.00
Name: M10134	Len: 251	Check: 8724	Weight: 1.00
Name: X01172	Len: 251	Check: 3612	Weight: 1.00
Name: M12515	Len: 251	Check: 112	Weight: 1.00
Name: AE000664	Len: 251	Check: 4675	Weight: 1.00
Name: M18252	Len: 251	Check: 1995	Weight: 1.00
Name: M18251	Len: 251	Check: 2423	Weight: 1.00
Name: S74315	Len: 251	Check: 1833	Weight: 1.00
Name: M10062	Len: 251	Check: 1751	Weight: 1.00
Name: E00593	Len: 251	Check: 1751	Weight: 1.00
Name: E01116	Len: 251	Check: 1751	Weight: 1.00
Name: E00594	Len: 251	Check: 1811	Weight: 1.00
Name: E01117	Len: 251	Check: 1811	Weight: 1.00
Name: X54077	Len: 251	Check: 2537	Weight: 1.00
Name: X04120	Len: 251	Check: 2537	Weight: 1.00
Name: X97915	Len: 251	Check: 3213	Weight: 1.00
Name: M17551	Len: 251	Check: 5139	Weight: 1.00
Name: U58494	Len: 251	Check: 5139	Weight: 1.00
Name: U70139	Len: 251	Check: 1928	Weight: 1.00

//

1

FNC3B	GTGGGGTGCG	AGGCTAAGC.	ACTGCACAGA	GGATAGCTT.	...GCTGT.T	GG.CATCCTG	T.GGAAGGCA	CGTC
X57268	GAGAGTTGTA	AGACTAAGT.	ACTGCACAGA	GATTAGTCTA	GAAGCTGT.T	GGACAGTCTC	T.GAGAGGCA	TGTC
M10134	AGGAGTTGCA	AGGCTAAGC.	ACTGCACAGG	AGAGG.TCTG	CGG..TATAA	CGACTTTCTC	CTGGGAGATA	AGTC
X01172	GAGAGTTGCA	CGGCTAAGC.	ACTGCAGTAG	AAGGGCTCTG	CGGCACATAT	GAGCCTATTC	TAGGGAGACA	TGTC
M12515	GAGAGTCG.A	AGGCTAAGCA	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
AE000664	GAGAGTTGCA	CGGCTAAGC.	ACTGCAGTAG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
M18252	GAGAGTTGCA	CGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
M18251	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
S74315	GAGAGTTGCA	CGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
M10062	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAAACA	TGTC
E00593	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAAACA	TGTC

E01116	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAAACA	TGTC
E00594	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
E01117	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
X54077	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
X04120	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
X97915	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GTGCCTATTC	TAGGGGAGACA	TGTC
M17551	GAGAGTTGCA	CGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
U58494	GAGAGTTGCA	CGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGAGACA	TGTC
U70139	GAGAGTTGCA	AGGCTAAGC.	ACTGCAATGG	AAAGGCTCTG	CGGCATATAT	GAGCCTATTC	TAGGGNGACA	TGTC

	101							
FNC3B	AGTTCCCTTC	.CCCCAGGAA	AAACGACACG	GGAGCTGGCC	AAGACC.TCT	CTGGGTGA..TGAGC	CT.A
X57268	AGGGACCTTT	.CCCCAGAAA	AAAGGGCACA	GGAGCAGGTC	AGGGTT.ACT	CTGGGTAAAG	ATCTGTGGGC	CT.G
M10134	GATCTCCTT.	.CCCCAGAA	AAAAGACATC	GGA.CTGGTC	AGGACTTCCT	CTGGGGATAA	G.....ACC	CTGG
X01172	AGTGTCTTTC	TCCCCAGGAA	AAACGGCAGC	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.A
M12515	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGA.CAGGTC	AGGGTT.GCT	CTGGGTAAAA	.CCTGTAAGC	CT..
AE000664	AGTGTCTTTC	TCTCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.A
M18252	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.A
M18251	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GTT	CTGGGTAAAA	GCCTGTAAGC	CT.A
S74315	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
M10062	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
E00593	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
E01116	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
E00594	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
E01117	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A
X54077	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.A
X04120	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.A
X97915	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTGAGC	CT.C
M17551	AGTTGCCCT.	TCCCCAGGCA	AAACGACAC.	GGAGCAGGTC	AGGGTTGGCT	CTGGGTAAAA	GCCTGTGAGC	CTC.
U58494	AGTTGCCCT.	TCCCCAGGCA	AAACGACAC.	GGAGCAGGTC	AGGGTTGGCT	CTGGGTAAAA	GCCTGTGAGC	CTC.
U70139	AGTTCCCTTC	.CCCCAGGCA	AAACGACACG	GGAGCAGGTC	AGGGTT.GCT	CTGGGTAAAA	GCCTGTAAGC	CT.A

	201					251	
FNC3B	TG.CTTGCAC	ACTGGGGATC	AGACCTCTAC	CTTCACCCAT	GAGGCTTGCT	T	
X57268	AC.ATGACAC	ACTGGGGATC	AGACCTCTAC	CTCTACCCAC	GGAGCTTGCT	T	
M10134	T...TTGCAC	A.TGGGGATT	TGACCTCTAT	CTCCACTC.C	AAAGTTGTGG	G	
X01172	T.ACCTGCAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
M12515	TTACCTACAC	ACTGGG...	TGACCTCTAT	CT.CACTCTC	ATCAATATGG	T	
AE000664	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAGTTGGG	T	
M18252	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
M18251	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CCTCACTCTC	ATTAATATGG	G	
S74315	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCAGTCTC	ATTAATATGG	G	
M10062	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
E00593	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
E01116	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
E00594	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
E01117	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
X54077	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
X04120	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
X97915	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
M17551	TGACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
U58494	TGACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	
U70139	T.ACCTACAC	ACTGGGGATT	TGACCTCTAT	CTCCACTCTC	ATTAATATGG	G	

Plurality: 2.00 Threshold: 1 AveWeight 1.00 AveMatch 1.00 AvMisMatch 0.00

PRETTY of: CTE-setClg.msf(*) 10:04 ..